

# The Mystery of 'I' - An Unsolved Question of Life

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**Abstract:** *What is life? What is the origin of life? What is the difference between a living being and an inanimate object? People are always shaken by these puzzling questions from the very beginning. Well, scientists made an attempt to find out the mystery of that very existence, but their conception was materialistic based on the principles of physics and chemistry. According to their viewpoint, we and all the living beings are made of chemicals like carbon, oxygen, water etc. The life is originated from atoms and biomolecules (DNA, RNA, Protein etc.). We are the just dust stuff orbiting in the core of stars. But here is an ambiguity: if we are originated from those chemical entities which are really dead and inanimate in nature, then how do we live, as we are not considered ourselves as inanimate material? This ambiguity arose a very fundamental question. 'Who am I? What is the nature of 'SELF'? Fortunately this is the very ancient spiritual and philosophical question too. Although, the mystery of life is still unsolvable and bearing a challenge for future, now it is the time to discard off the very traditional materialistic model of reality. Rather the spiritual dimension of life must be recognized. This reality is easily understandable. It is realizable that we are not the result of chemical reactions i.e. biological birth and biological death. We are the different kind of existence, independent of material. The problem is that we cannot recognize the reality of self in daily life experience. We are somehow biased for material body. The material has no feelings, emotion, thinking power etc. All of we know that. Human body is also material but how can it generate those things?. In this connection we cannot correlate the very nature of life with the material body. One of the evidences establishes that 'We the human beings, are not the activity of simple hydrocarbons rather something else'. We are called "living beings, not things". Hence scientific people should have to investigate about the mysterious nature of SELF.*

**Keywords:** Life, Consciousness, Big Bang Theory

## 1. Contextual Background and Conceptual Literature / Literature Review

'What is the origin of life?' – This very fundamental and delicate question has always puzzled the scientists from the ancient to modern age, but still has been an unsolved mysterious question.

### 1.1. Miller Urey Experiment

A classic experiment in molecular biology, the Miller-Urey experiment, established that the conditions that existed in Earth's primitive atmosphere were sufficient to produce amino acids, the subunits of proteins comprising and required by living organisms. In essence, the Miller-Urey experiment fundamentally established that Earth's primitive atmosphere was capable of producing the building blocks of life from inorganic materials.

In 1953, University of Chicago researchers Stanley L. Miller and Harold C. Urey set up an experimental investigation into the molecular origins of life. Their innovative experimental design consisted of the introduction of the molecules thought to exist in early Earth's primitive atmosphere into a closed chamber. Methane (CH<sub>4</sub>), hydrogen (H<sub>2</sub>), and ammonia (NH<sub>3</sub>) gases were introduced into a moist environment above a water-containing flask. To simulate primitive lightning discharges, Miller supplied the system with electrical current.

After a few days, Miller observed that the flask contained organic compounds and that some of these compounds were the amino acids that serve as the essential building blocks of protein. Using chromatological analysis, Miller continued his experimental observations and confirmed the ready

formation of amino acids, hydroxy acids, and other organic compounds. Although the discovery of amino acid formation was of tremendous significance in establishing that the raw materials of proteins were easily to obtain in a primitive Earth environment, there remained a larger question as to the nature of the origin of genetic materials; in particular the origin of DNA and RNA molecules.

Continuing on the seminal work of Miller and Urey, in the early 1960s Juan Oro discovered that the nucleotide base adenine could also be synthesized under primitive Earth conditions. Oro used a mixture of ammonia and hydrogen cyanide (HCN) in a closed aqueous environment. Oro's findings of adenine, one of the four nitrogenous bases that combine with a phosphate and a sugar (deoxyribose for DNA and ribose for RNA) to form the nucleotides represented by the genetic code: (adenine (A), thymine (T), guanine (G), and cytosine (C)). In RNA molecules, the nitrogenous base uracil (U) substitutes for thymine. Adenine is also a fundamental component of adenosine triphosphate (ATP), a molecule important in many genetic and cellular functions.

Subsequent research provided evidence of the formation of the other essential nitrogenous bases needed to construct DNA and RNA. The Miller-Urey experiment remains the subject of scientific debate. Scientist continue to explore the nature and composition of Earth's primitive atmosphere and thus, continue to debate the relative closeness of the conditions of the Miller-Urey experiment (e.g., whether or not Miller's application of electrical current supplied relatively more electrical energy than did lightning in the primitive atmosphere). Subsequent experiments using alternative stimuli (e.g., ultraviolet light) also confirm the formation of amino acids from the gases present in the Miller-Urey experiment. During the 1970s and 1980s,

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astrobiologists and astrophysicists, including American physicist Carl Sagan, asserted that ultraviolet light bombarding the primitive atmosphere was far more energetic than even continual lightning discharges. Amino acid formation is greatly enhanced by the presence of an absorber of ultraviolet radiation such as the hydrogen sulfide molecules ( $H_2S$ ) also thought to exist in the early Earth atmosphere.

Although the establishment of the availability of the fundamental units of DNA, RNA and proteins was a critical component to the investigation of the origin of biological molecules and life on Earth, the simple presence of these molecules is a long step from functioning cells. Scientists and evolutionary biologists propose a number of methods by which these molecules could concentrate into a crude cell surrounded by a primitive membrane.

## 1.2. Big Bang – The Origin of Universe but does not mean the Origin of Life

Ultimately scientists got the explanation! According to them, about 15 billion years ago, the universe was brought into existence by Big Bang. At the very first moment, it had zero volume and must have entirely the radiant energy. A very small fraction of its energy had transformed into matter. From that day to this, the energy plus matter has constituted the whole universe. Gradually electrons, protons, atoms, molecules, galaxies, stars started to form with time. Some scientists try to explain that the life is originated from this very event. Our existence has only been possible due to this chemical evolution. We are the dust orbiting in the core of stars. Well, it is true that the physico-chemical processes are very important for sustaining life on earth. But again it is the materialistic model of life!

## 2. Objective

The paper emphasized on the fact that all living beings have a form which is called 'LIFE'. This active form or entity has enormous properties like mind, emotion, behavior, intelligence, memory etc. which are totally distinctive and particular from the non living forms of matter or inanimate objects. The actual new definition of 'LIFE' or 'SELF' should be re-established in the modern era of today's Globe.

## 3. Methodology

The following peer **observations** do not support the materialistic view point of life.

### 3.1. Evidence of Identity

When someone asks us, 'who are you?' The answer is obviously 'I am that person'. This word 'I' clearly indicates and reveals the existence of self-consciousness which is not inanimate hydrocarbons, bimolecular species. We never say, 'I am a sodium ion!'

### 3.2. Evidence of Languages / Articulation

When a human being sounds 'I', he or she expresses his or her self identity. If human beings are made of chemicals,

then how and why can a material body say themselves as, 'I'?

### 3.3. Evidence of Historical events

Historically it is evidenced that the great civilizations (such as The Harappa, The Egyptian civilizations etc), famous Dynasties (The Romans, The Greeks etc), World War-I & II were set up by the very Human beings. If they are considered as chemicals, then they would take part in so many reactions i.e. Redox Reactions, Acid-Base reactions etc. which can only be performed by inanimate chemicals. Now the biggest question is "Who did all of these things (Living entity or Chemicals)?"

### 3.4. Response to the external stimuli

The fundamental property of any living system is to respond to the surroundings (heat, sound, force, even emotional aspects). It is truly evidenced that the responses are the effects of hormone secretion and nerve conduction and sodium, potassium; calcium ions conduct the nerve impulses in the living body. But they can conduct electricity in electrochemical cell also. So, it would be expected if the dead body is charged by these ions, they would be again alive. But reality doesn't support it. Then "Who is living and responding from inside the chemical body?"

### 3.5 The Birth Process

This biological procedure consists of a number of successive stages from fertilization of the egg by sperm, Zygote formation, cell division to grow up the fetus, but the entrance of life into the growing fetus is still full of mystery.

### 3.6. Consciousness & Memory

Modern science cannot neglect the inherent consciousness of life. It is meaningless to argue that chemicals have power of thinking and memorizing, but we have. Why do we have them? Why the semiconductor chip doesn't return back the washed out memory of an Alzheimer's patient? Besides, the living beings have "aging" from birth to death with very changes in physico-chemical body.

### 3.7. The Death

It is the natural fundamental principle and process that living beings is mortal while chemicals are immortal. If the humans are supposed to consider as chemicals, then there is no question of 'DEATH'. But the reality reveals all the life sustaining biochemical processes are stopped forever in a living body that we call 'DEATH'. It gives a clear indication that the absence of 'something (governs the whole biological and psychological processes)' in the material body causes the death.

## 4. Analysis (Excluding the religious aspects)

These much observed evidences of the reality wholly established the fundamental question "Who is living in the material body?" Science initially (and historically also) revealed, 'LIFE' is an enclosed portion of electrolytic

colloidal solution called “PROTOPLASMIC CELL” which is the structural and functional unit of “LIFE”. It should be considered as the materialistic part of living beings. Apart from this, a parallel spiritual and philosophical definition of life has been grown up (in human perception and mind!). If the Big Bang theory tells about our creation, then it should explain the origin and nature of consciousness, but unfortunately it hasn't the proper answer till date.

## 5. Conclusion

What the true nature of life is, is a big challenge to today's modern science. The scientists and researchers should have to do research to find out the proper scientific explanation of “LIFE”. If we get the bridging connection between the spiritual and material dimension of this very existence, then it will be possible to resolve the unsolved mysterious question of “LIFE”, to invent the methods of immortality and to cure many life hacking diseases for the sake of mankind.

## References

- [1] Cox. B, Cohen. A., Wonders of the Universe., (Collins (3 March 2011)., ASIN: B004UKCCGG
- [2] Cox. B, Cohen. A., Wonders of Life: Exploring the Most Extraordinary Phenomenon in the Universe (Wonders Series)., (Harper Design (11 June 2013)., ASIN: B009NG39K0
- [3] Pielou. E. C., The Energy Of Nature., (The University of Chicago Press, Chicago 606
- [4] The University of Chicago Press, Ltd., London© 2001 by The University of Chicago)., (2001)., ISBN: 0-226-66806-1 (cloth)
- [5] Lanza. R, Berman. B., Biocentrism, How Life and Consciousness are the Keys to Understanding the True Nature of the Universe., (BenBella Books, Inc.6440 N. Central Expressway, Suite 503, Dallas, TX 75206)., ISBN 978-1933771-69-4